Fabric Over Foam Gasket: A Reliable Solution for Effective EMI Shielding

INTRODUCTION

EMC shielding gaskets are engineered components designed to guarantee electromagnetic compatibility by providing a highly conductive seal between mating surfaces. These gaskets prevent electromagnetic interference (EMI) and radio frequency interference (RFI) from entering or escaping electronic systems. They are essential for industries such as telecommunications, aerospace, medical devices, automotive electronics, defence systems, and industrial automation.

TECHNICAL SPECIFICATIONS Shielding Effectiveness:

60–110 dB @ 10 MHz — 10 GHz Surface Resistivity: < 0.1 Ω/sq (depending on conductive fabric or elastomer) Compression Range: 25–75% Operating Temperature: −40 °C to +85/+105/+125 °C Materials Available: conductive fabric (Ni/Cu plated polyester), foam cores (PU, EPDM, neoprene), conductive elastomers, conductive cloths, conductive non woven materials.

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CONSTRUCTION Available constructions include: -

Fabric over foam gasket (dominant for EMI/EMC applications) Conductive gasket using elastomer based materials — Conductive cloth and conductive non woven laminates for shielding — Hybrid shielding profiles combining mesh, foam, and elastomer layers EMI / EMC PERFORMANCE EMC shielding gaskets provide broadband attenuation with high stability over mechanical compression cycles. Their performance is suitable for compliance with EN, IEC, CISPR, and MIL EMC standards. They ensure low contact resistance and long term mechanical durability.

INDUSTRIAL APPLICATIONS These components are widely used in: -

Base stations, 5G modules, antenna housings — Avionics, radar systems, defence electronics — Medical diagnostic equipment — Industrial control cabinets and power electronics Automotive ADAS modules, EV charging systems RELATED KEYWORD INTEGRATION The following related keywords are included for expanded SEO relevance: "conductive gasket solutions", "emi shielding gaskets for enclosures", "fabric over foam gasket profiles",

“conductive non woven materials for EMI”, “high performance conductive cloths”, “emc shielding gasket supplier”. ADVANTAGES Key advantages include high shielding performance, stable conductivity, corrosion resistance, ease of installation, and compatibility with irregular geometries. Custom dimensions and OEM engineering support are available for international customers.

CONCLUSION

This technical document is optimized for monthly SEO operations managed by Fanedoor India. It contains the primary and secondary industrial keywords relevant to electromagnetic shielding gaskets and related conductive materials